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     LREGISTRY IS A STATIC LEARNING FILE

     NEW CAS INFORMATION USE POLICIES, ENTER HELP USAGETERMS FOR DETAILS.

     FILE REGISTRY
     Property values tagged with IC are from the ZIC/VINITI data file
     provided by InfoChem.

     STRUCTURE FILE UPDATES:   12 APR 2009  HIGHEST RN 1133953-33-9
     DICTIONARY FILE UPDATES:  12 APR 2009  HIGHEST RN 1133953-33-9

     New CAS Information Use Policies, enter HELP USAGETERMS for details.

     TSCA INFORMATION NOW CURRENT THROUGH January 9, 2009.

       Please note that search-term pricing does apply when
       conducting SmartSELECT searches.
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REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For informatio on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

FILE HCAPLUS

FILE COVERS 1907 - 13 Apr 2009 VOL 150 ISS 16
FILE LAST UPDATED: 12 Apr 2009 (20090412/ED)

HCAplus now includes complete International Patent Classification (I reclassification data for the third quarter of 2008.

CAS Information Use Policies apply and are available at:

http://www.cas.org/legal/infopolicy.html

This file contains CAS Registry Numbers for easy and accurate substance identification.

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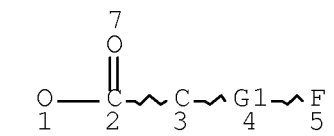


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STEREO ATTRIBUTES: NONE
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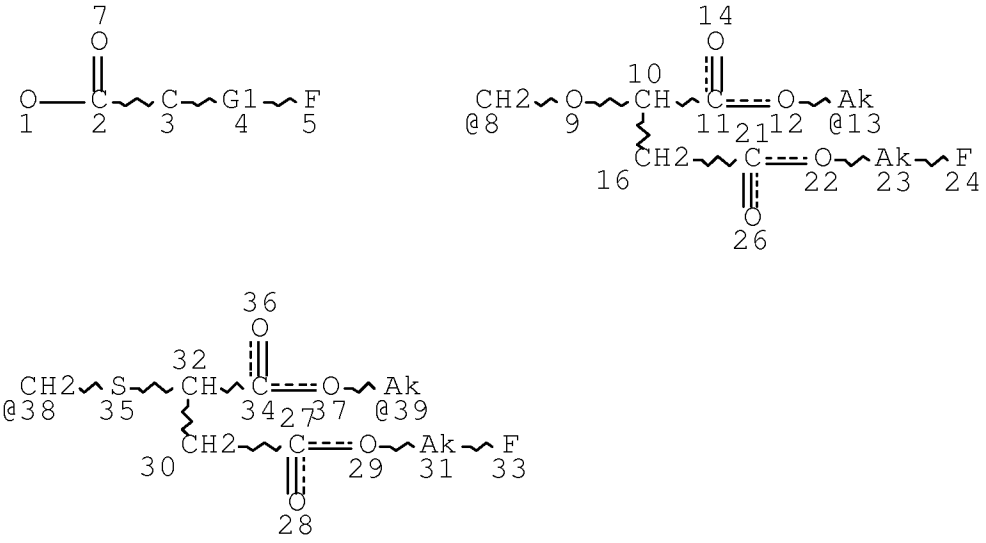

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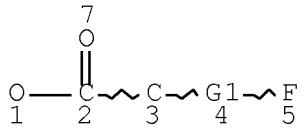

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RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE
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100.0% PROCESSED 353 ITERATIONS 10 ANSWERS
SEARCH TIME: 00.00.01

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L6 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2009 ACS on STN
AN 2004:873917 HCAPLUS Full-text
DN 141:367644
TI Fluoro surfactants with balanced solubility and surfactancy
IN Otaguro, Tsuneyuki; Kinoshita, Koji
PA Dainippon Ink and Chemicals, Inc., Japan
SO Jpn. Kokai Tokkyo Koho, 30 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2004292658	A	20041021	JP 2003-87673	

200303
27

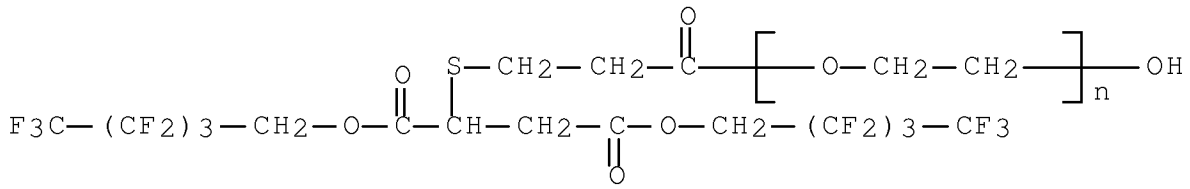
PRAI JP 2003-87673 20030327

AB Title surfactants comprise surfactants containing same of different ≥2 organic groups and oxyalkylene chains F(CF2)mRYC(:O), wherein m = 1-20 integer; R = (CH2)n or X(CH2)n; n = 1 or 2; X = divalent bond; and Y = O or S. Thus, 3,3,4,4,5,5,6,6,6-nonafluorohexanol 400.0, thiomalic acid 75.0, and concentrated sulfuric acid 5.0 g, and toluene 100 mL were refluxed, 40 g slaked lime was added therein and stirred to give 320 g thiomalic acid di-(3,3,4,4,5,5,6,6,6-nonafluorohexyl) ester, 45.0 g of which was reacted with 66.7 g polyethylene glycol mono(2-chloroethyl) ether at 80° for 5 h to give a fluoro surfactant with good solubility in water (0.5 % and 1.0%) and surface tension 21.4 mN/m at 0.1%, 18.5 mN/m at 0.5%, and 18.0 mN/m at 1.0%.

IT 777945-81-0P 777945-82-1P 777945-91-2P
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(preparation of fluoro surfactants with balanced solubility and surfactancy)

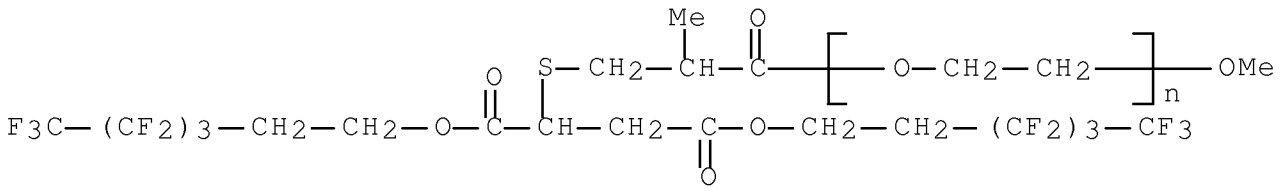
RN 777945-81-0 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[3-[[3-[(2,2,3,3,4,4,5,5,5-nonafluoropentyl)oxy]-1-[[(2,2,3,3,4,4,5,5,5-nonafluoropentyl)oxy]carbonyl]-3-oxopropyl]thio]-1-oxopropyl]-ω-hydroxy- (9CI) (CA INDEX NAME)



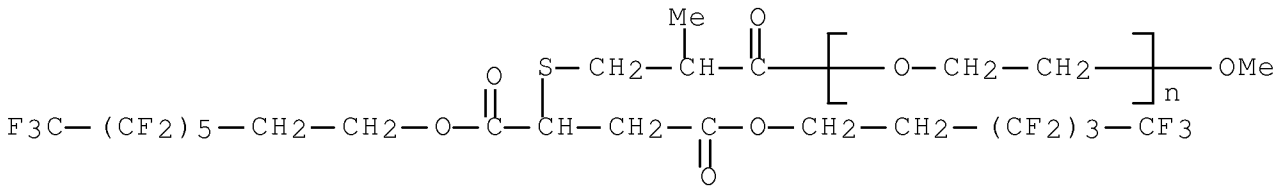
RN 777945-82-1 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[2-methyl-3-[[3-[(3,3,4,4,5,5,6,6,6-nonafluorohexyl)oxy]-1-[[(3,3,4,4,5,5,6,6,6-nonafluorohexyl)oxy]carbonyl]-3-oxopropyl]thio]-1-oxopropyl]-ω-methoxy- (9CI) (CA INDEX NAME)



RN 777945-91-2 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[2-methyl-3-[[3-[(3,3,4,4,5,5,6,6,6-nonafluorohexyl)oxy]-1-[[(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)oxy]carbonyl]-3-oxopropyl]thio]-1-oxopropyl]-ω-methoxy- (9CI) (CA INDEX NAME)



IC ICM C11D001-72
ICS B01F017-42; C07C323-52

CC 46-3 (Surface Active Agents and Detergents)
Section cross-reference(s): 38

IT 777945-80-9P 777945-81-0P 777945-82-1P
777945-84-3P 777945-85-4P 777945-88-7P 777945-89-8P
777945-91-2P 777945-92-3P 777945-94-5P
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(preparation of fluoro surfactants with balanced solubility and surfactancy)

L6 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2009 ACS on STN
AN 1974:553046 HCAPLUS Full-text
DN 81:153046
OREF 81:23857a,23860a
TI Perfluoroalkyl carboxylic acids
IN Kleiner, Eduard K.; Falk, Robert A.
PA Ciba-Geigy A.-G.
SO Ger. Offen., 37 pp.

CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

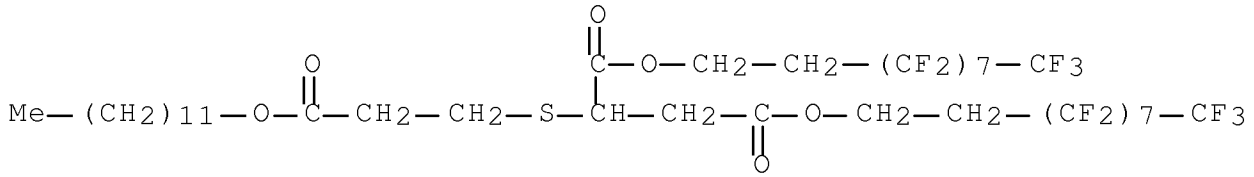
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2338381	A1	19740228	DE 1973-2338381	19730728
US 3819666	A	19740625	US 1972-281085	19720816

PRAI US 1972-281085 A 19720816

AB 3-[1,2-Bis(1,1,2,2-tetrahydroperfluorodecyloxycarbonyl)ethylthio]propionic acid (I) [52978-18-4], RCH2CH2O2CCH(SCH2CH2CO2H)CH2CO2CH2CH2R1 (R and R1 = C6F13-C8F17-C10F21 mixture), [1,2-bis(1,1,2,2-tetrahydroperfluorodecyloxycarbonyl)ethylthio]succinic acid (II) [53051-36-8], [1,2-bis[2-[(ethyl)(perfluorooctylsulfonyl)amino]ethoxycarbonyl]ethylthio]succinic acid [52978-15-1], 5 similar compds., and 4 derivs. (esters and anhydrides) of these compds., useful for preparing oil- and water-repellent compns., were prepared Thus, a mixture of bis(1,1,2,2-tetrahydroperfluorodecyl) fumarate [33072-51-4] 10.08, 3-mercaptopropionic acid [107-96-0] 1.11, Et3N 0.10, and MeCCl3 44 g was heated at 65.deg. to prepare 7.7 g I.

IT 52978-13-9P
RL: PREP (Preparation)
(preparation of)

RN 52978-13-9 HCAPLUS
CN Butanedioic acid, 2-[[3-(dodecyloxy)-3-oxopropyl]thio]-, 1,4-bis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl) ester (CA INDEX NAME)



IC C07C
CC 35-2 (Synthetic High Polymers)

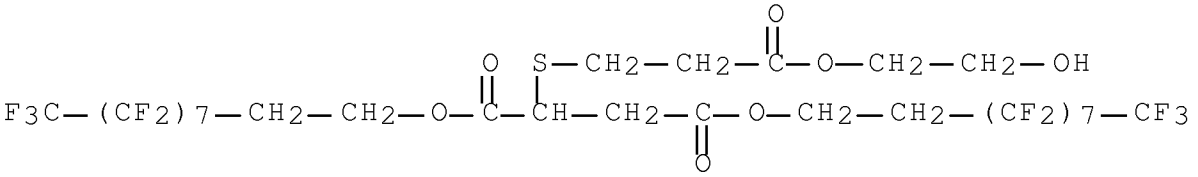
Section cross-reference(s): 23
IT 68-11-1DP, Acetic acid, mercapto-, reaction products with bis(fluoroalkyl) fumarates 70-49-5DP, Butanedioic acid, mercapto-, reaction products with bis(fluoroalkyl) fumarates 107-96-0DP, Propanoic acid, 3-mercapto-, reaction products with bis(fluoroalkyl) fumarates 52978-12-8P **52978-13-9P** 52978-14-0P 52978-15-1P 52978-16-2P 52978-17-3P 52978-18-4P 53051-36-8P 53187-17-0P
RL: PREP (Preparation)
(preparation of)

L6 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2009 ACS on STN
AN 1974:553045 HCAPLUS Full-text
DN 81:153045
OREF 81:23857a,23860a
TI Perfluoroalkyl alcohols
IN Kleiner, Eduard K.; Falk, Robert A.
PA Ciba-Geigy A.-G.
SO Ger. Offen., 43 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2338382	A1	19740228	DE 1973-2338382	19730728
PRAI US 1972-281084	A	19720816		

AB 2-[1,2-Bis(1,1,2,2-tetrahydroperfluorodecoxycarbonyl)ethylthio]ethanol (I) [53027-85-3], RCH2CH2O2CCH(CH2CO2CH2CH2R1)SCH2CH2OH (R and R1 = C6F13-C8F17-C10F21 mixture), 1,3-bis[1,2-bis(1,1,2,2-tetrahydroperfluorodecoxycarbonyl)ethylthio]-2-propanol [52978-19-5], and 9 similar alcs., useful as oil- and water-repellent finishes for textiles, etc., were prepared from bis(fluoroalkyl) fumarates and 2-mercaptoethanol [60-24-2], 1,3-dimercapto-2-propanol [584-04-3], 1,4-dimercapto-2,3-butanediol [7634-42-6], Dion DPM-3-800-LC (polymercaptan) [53027-87-5], or a similar compound Thus, 0.005 mole bis(1,1,2,2-tetrahydroperfluorodecyl) fumarate [33072-51-4], 0.005 mole HSCH2CH2OH, 0.1 g Et3N, and 15 g MeCCl3 were heated at 60.deg. to prepare 3.3 g I.
IT **53187-16-9P**
RL: PREP (Preparation)
(preparation of)
RN 53187-16-9 HCAPLUS

CN Butanedioic acid, 2-[[3-(2-hydroxyethoxy)-3-oxopropyl]thio]-, 1,4-bis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl) ester (CA INDEX NAME)



IC C07C
CC 35-2 (Synthetic High Polymers)
Section cross-reference(s): 23
IT 60-24-2DP, Ethanol, 2-mercapto-, reaction products with bis(fluoroalkyl) fumarates 96-27-5DP, 1,2-Propanediol, 3-mercapto-, reaction products with bis(fluoroalkyl) fumarates 7634-42-6DP, 2,3-Butanediol, 1,4-dimercapto-, reaction products with bis(fluoroalkyl) fumarates 52978-19-5P 52978-20-8P 52978-21-9P 52978-22-0P 53027-85-3DP, Dion DPM 5-1300, reaction products with bis(fluoroalkyl) fumarates 53027-86-4DP, Dion DPM 1002, reaction products with bis(fluoroalkyl) fumarates 53027-87-5DP, Dion DPM 3-800LC, reaction products with bis(fluoroalkyl) fumarates **53187-16-9P**
RL: PREP (Preparation)
(preparation of)

L6 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2009 ACS on STN
AN 1973:454841 HCAPLUS Full-text
DN 79:54841
OREF 79:8847a,8850a
TI Perfluoroalkyl group-containing mercaptans and sulfides
IN Falk, Robert A.; Kleiner, Eduard K.
PA Ciba-Geigy A.-G.
SO Ger. Offen., 71 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2253051	A1	19730524	DE 1972-2253051	197210

				28
US 3886201	A	19750527	US 1971-199715	197111 17
ZA 7207711	A	19730725	ZA 1972-7711	197210 31
AU 7248461	A	19740502	AU 1972-48461	197211 02
GB 1411614	A	19751029	GB 1972-51324	197211 07
FR 2165877	A1	19730810	FR 1972-40551	197211 15
IT 973549	B	19740610	IT 1972-54021	197211 15
BE 791446	A1	19730516	BE 1972-124202	197211 16
NL 7215531	A	19730521	NL 1972-15531	197211 16
JP 48061419	A	19730828	JP 1972-114912	197211 17
FR 2204621	A1	19740524	FR 1973-40506	197311 14

PRAI US 1971-199715 A 19711117
US 1971-199791 A 19711117

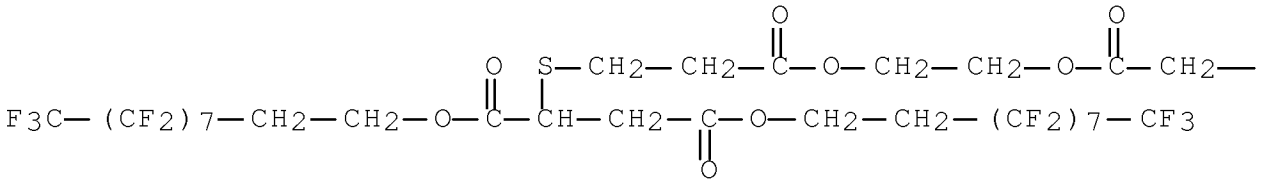
AB Reaction of a mercaptan containing .geq.1 SH groups with a fluoroalkyl fumarate gave the title sulfides and reaction of thiomalonic acid [70-49-5] with 1,1,2,2-tetrahydroperfluorodecyl acetate [37858-04-1] gave bis(1,1,2,2-tetrahydroperfluorodecyl) mercaptosuccinate [41395-79-3]. The title compds. (24 used) were useful as oil and water repellents for cotton and Dacron fabrics. Thus, MeCCl3 containing bis(1,1,2,2-tetrahydroperfluorodecyl) fumarate [33072-51-4], butanedithiol [1191-08-8], and Et3N was heated 24 hr at 60.deg. to give 75% tetrabis(1,1,2,2-tetrahydroperfluorodecyl) (tetramethylenedisthio)disuccinate (I) [41395-81-7], m. 60-1.deg.. Dacron fabric treated with a 3% solution of I (containing 60.68% F) in MeCCl3 exhibited an oil repellency rating of 6 [on a scale of 1 (min.)-8(maximum)] in AATCC test 118-

1966T and a water repellency rating of 0 [on a scale of 0(min.)-100(maximum)] in AATCC test 22-1966 with 0.2% F on the fabric.

IT **42941-41-3 42941-42-4 42941-43-5**
RL: USES (Uses)
(soil repellents, for textiles)

RN 42941-41-3 HCAPLUS
CN 8,11-Dioxa-4,15-dithiaoctadecanedioic acid, 3,16-bis[[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)oxy]carbonyl]-7,12-dioxo-, 1,18-bis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl) ester (CA INDEX NAME)

PAGE 1-A



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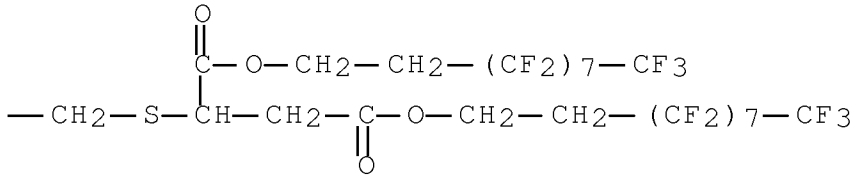
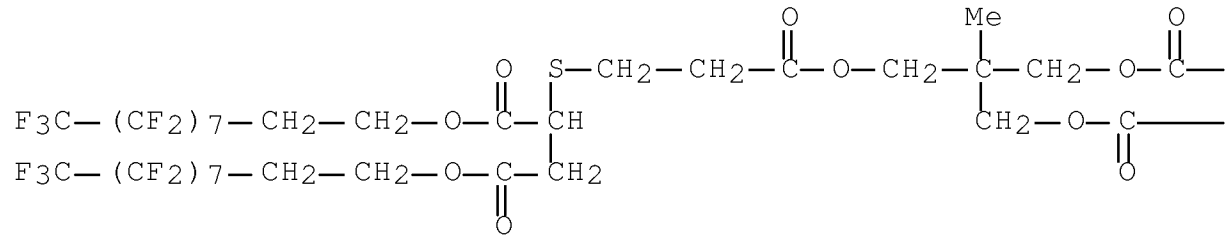
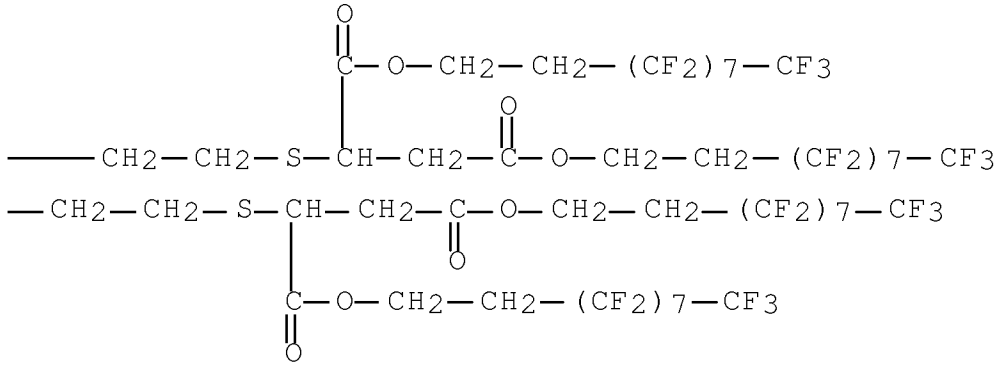


RN 42941-42-4 HCAPLUS
CN 8,12-Dioxa-4,16-dithianonadecanedioic acid, 3,17-bis[[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)oxy]carbonyl]-10-[[3-[[3-[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)oxy]-1-[[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)oxy]carbonyl]-3-oxopropyl]thio]-1-oxopropoxy]methyl]-10-methyl-7,13-dioxo-, 1,19-bis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl) ester (CA INDEX NAME)

PAGE 1-A



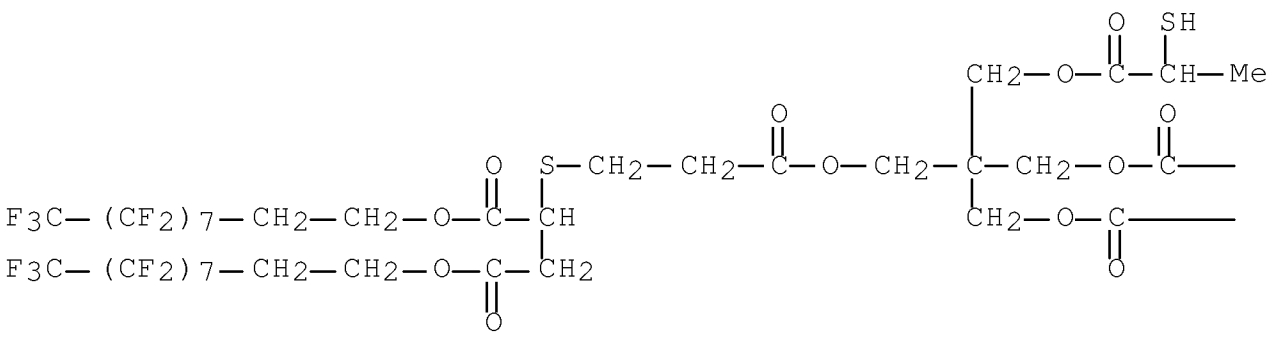
PAGE 1-B



RN 42941-43-5 HCAPLUS

CN 8,12-Dioxa-4,16-dithianonadecanedioic acid, 3,17-bis[[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)oxy]carbonyl]-10-[(2-mercapto-1-oxopropoxy)methyl]-10-[(3-mercapto-1-oxopropoxy)methyl]-7,13-dioxo-, 1,19-bis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl) ester (CA INDEX NAME)

PAGE 1-A



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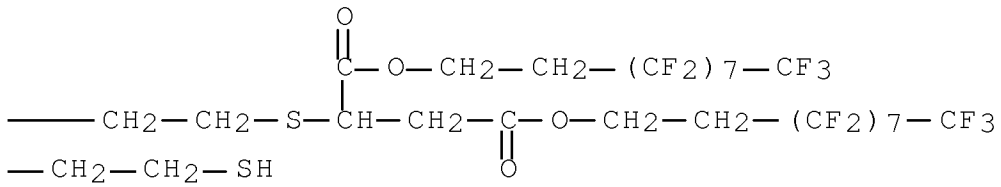


IC C07C; D06M
CC 39-10 (Textiles)
Section cross-reference(s): 23, 25
IT 39466-57-4 39466-58-5 41395-79-3 41395-81-7 42941-36-6
42941-37-7 42941-38-8 42941-39-9 42941-40-2 **42941-41-3**
42941-42-4 **42941-43-5** 43030-37-1 43030-38-2
43193-00-6
RL: USES (Uses)
(soil repellents, for textiles)

L6 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2009 ACS on STN
AN 1973:454840 HCAPLUS Full-text
DN 79:54840
OREF 79:8847a,8850a
TI Free radical polymerization using perfluoroalkyl group-containing mercaptans as chain-transfer agents
IN Falk, Robert A.; Kleiner, Eduard
PA Ciba-Geigy A.-G.
SO Ger. Offen., 74 pp.

CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2253004	A1	19730524	DE 1972-2253004	19721028
	US 3758447	A	19730911	US 1971-199791	19711117
	CA 989999	A1	19760525	CA 1972-154962	19721027
	AU 7248461	A	19740502	AU 1972-48461	19721102
	CH 1612972	D	19740930	CH 1972-16129	19721106
	CH 561810	B5	19750515		
	GB 1411614	A	19751029	GB 1972-51324	19721107
	IT 973549	B	19740610	IT 1972-54021	19721115
	BE 791446	A1	19730516	BE 1972-124202	19721116
	NL 7215532	A	19730521	NL 1972-15532	19721116
	AT 319595	B	19741227	AT 1972-9745	19721116
	CS 161967	B2	19750610	CS 1972-7774	19721116
	JP 48062879	A	19730901	JP 1972-114913	19721117
	BR 7208094	D0	19730925	BR 1972-8094	19721117

FR 2204621 A1 19740524 FR 1973-40506 197311 14

PRAI US 1971-199791 A 19711117
US 1971-199715 A 19711117

AB Polymers with low surface tension, especially useful as antisoiling finishes for textiles, consisted of (RfACHR3CR1R2S)mB[S(M)q]nH or (RfACHR3CR1R2S)(M)qH, R1, R2, R3 = H, Me, RfA, RfACH2 with .geq.1 of R1, R2, R3 = RfA or RfACH2; Rf = perfluoroalkyl; A = a group of the type (CH2)kCO2, k = 0-10; B = combining atom or group, e. g., C; m = 0-10; n = 1-9; M = monomeric group; q = >1. The polymers were prepared by polymerizing the monomer in the presence of a perfluorogroup-containing mercaptan chain-transfer agent, such as RfACHR3CR1R2SH. Thus, 10 parts 2:10 mercaptan chain-transfer agent [C8F17CH2CH2O2CH(SH)CH2CO2CH2CH2C8F17] [41395-79-3] - Me methacrylate (I) [80-62-6] mixture, 0.5% azobisisobutyronitrile (on weight I) and 20 parts EtOAc were polymerized for 16 hr at 70.deg. to give a product containing 0.85% F, number-average mol. weight 6815, and critical surface tension 14.3 dynes/cm compared with 39.0 dynes/cm for a sample similarly prepared but using no mercaptan chain-transfer agent.

IT 43021-07-4
RL: USES (Uses)
(soil-resistant finishes for textiles)

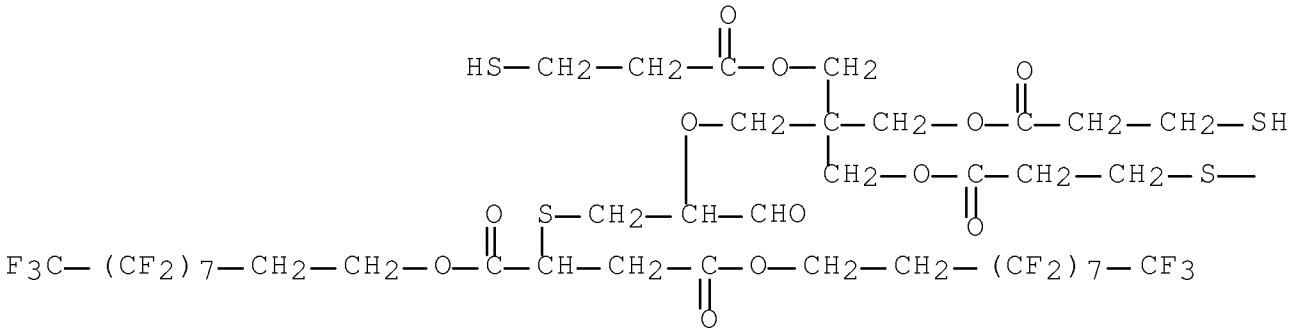
RN 43021-07-4 HCAPLUS

CN 6,10-Dioxa-3,14-dithiahexadecane-1,2,15,16-tetracarboxylic acid, 5-formyl-8,8-bis[(3-mercapto-1-oxopropoxy)methyl]-11-oxo-, tetrakis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl) ester, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

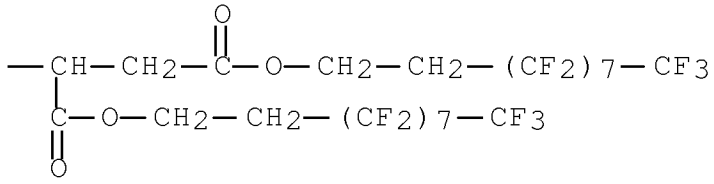
CM 1

CRN 49857-56-9
CMF C65 H48 F68 O16 S4

PAGE 1-A

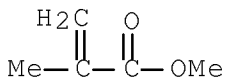


PAGE 1-B



CM 2

CRN 80-62-6
CMF C5 H8 O2



IC C08F

CC 39-10 (Textiles)
IT 43021-07-4
RL: USES (Uses)
(soil-resistant finishes for textiles)

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